

# L90H, L120H

Volvo Wheel Loaders 15.4 - 20t 186 - 276 hp



# **SMARTER OPERATION** L90H, L120H WHEEL LOADERS

Engineered for efficient and smart work, the innovative Volvo Wheel Loaders combine the latest Volvo technology with power and upgraded features, resulting in 20% greater fuel efficiency than the previous series.

#### Power up, fuel down



Built on decades of experience and featuring the most advanced technology, the powerful Volvo engine delivers high torque at low rpm, for superior performance.

New generation Opti-Shift (Optional)



For improved cycle times and greater fuel efficiency, customize the lock-up engagement of your machine, with new generation OptiShift. The improved technology integrates the Reverse by Braking function and the new torque with lock-up, creating a direct drive between the engine and transmission. Eco Pedal



Save on machine wear and increase fuel efficient with the eco pedal. Uniquelt designed by Volvo, the eco pedal encourages economical operation, by applying a mechanical push-back force in response to excess use of accelerator.

#### **Reverse By Braking (Optional)**



Extend the life of your machine's components and increase operator comfort with Reverse By Braking (RBB)- patented by Volvo. The braking function shows the machine when the operator wants to change direction, by reducing engine rpm and automatically applying the service brakes, reducing stress on the drivetrain

### MADE TO MOVE

Boosting productivity by up to 5% – compared to previous series – the Loaders are fitted with a new transmission and improved technology. Enhanced by Load Assist and CareTrack, the intelligent systems offer valuable insight about your operations, reducing fuel consumption and cycle times.

#### Boost your productivity by up to 5%



The H-series machine updates offer up to 5% greater productivity than the previous series. For ultimate stability and high efficiency, the Loaders have been upgraded with a new transmission, which works in harmony with the engine and axels. The new converter delivers increased torque output, resulting in better performance at low speeds. For faster acceleration and smooth operation, the steps between gears have been reduced.

#### **Comfortably productive**



Customize your machine and ensure precise control of hydraulic functions, with the choice of single or multi levers. To get the most out of each operation, select from three hydraulic modes, according to your preferred responsiveness.

#### **Bucket leveling function**



Take your productivity to the next level with the new bucket leveling function. Automatically return the bucket to level from both dump and curl positions, enhancing operator performance.

# LOADED FOR VERSATILITY

Get the most out of your wheel loader with a range of purpose built attachments. Form one solid and reliable unit, with attachments that are ideally matched by size and design to your machine's parameters – including link-arm geometry, breakout and lifting forces. And if we don't have the right attachment, Volvo can custom build one to your specific requirements.

#### Fork applications



Take your pick from a range of Volvo forks, offering stability and good visibility. Achieve precise control and ultimate productivity, thanks to the reach and parallel lift-arm action of the loader unit, offering the perfect combination with fork attachments.

#### Rehandling



Experience up to 5% greater productivity with a new range of Volvo Rehandling buckets. The redesigned buckets are easier to fill and minimize spillage, thanks to new convex sides and the improved spill guard. To prevent spillage and absorb shocks, opt for the Boom Suspension System, which automatically engages, depending on gear or speed selection.

#### Rock handling



Handles the rocks with a full line of dedicated attachments and machine configurations. Designed specifically for tunnelling, the robust attachments will ensure efficient and productive operation.

#### Log handling



Designed for high lifting force and tilt out force, and offering maximum stability in log handling applications, select from a choice of general purpose grapples, sorting grapples and unloading grapples.

## PERFECT YOUR PERFORMANCE

Built with the customer, for the customer, these Loaders boast of a range of features to enhance operator performance. For increased productivity, the Volvo cab can be customized to your preference and additional cameras offer greater visibility.

#### Visibility



To enhance visibility, the H-series wheel loaders can be equipped with a rear-view camera. The optional radar detect system, which works with the camera to give a visual and audible alert to the operator of unseen oncoming objects. Orange handrails and steps have been placed on the machine, intended to stand out to the operators and maintenance staff.

#### **Comfort Drive Control (Optional)**



To reduce operator fatigue and improve productivity, Comfort Drive Control can be optionally integrated into your machine. The smart function gives you the opportunity to steer the machine from a small lever – particularly effective for fast-paced truck loading operations.

#### **Operator training**



Increase productivity and reduce fuel consumption by learning how to operate your wheel loader in the most efficient way. Volvo offers operator training, which encompasses the best practices in the industry.

## INTELLIGENTLY PRODUCTIVE

#### Maximize your uptime

- Quicker hydraulic oil fill thanks to new mounted nipple
- Electronically-operated engine hood
- Slidable cooler installation
- Brake wear indicators
- Outboard mounted brakes
- Replaceable breather filters

#### Perfect your performance

- New rear view mirrors
- New adjustable seat
- Rear-view camera with 7" monitor
- Comfort Drive Control (Optional)
- Load Assist, powered by Volvo Co-Pilot (optional)

#### Up to 20% greater fuel efficiency

- Rimpull control
- Eco pedal
- New generation OptiShift (Optional)
- Dry P-brake
- Matched Volvo attachments

#### Boost your productivity by up to 5%

- New transmission and gear ratio
- Choice of single or multi levers
- Choice of three hydraulic modes
- Bucket leveling function

#### Loaded for versatility

- Unique Torque Parallel linkage
- New Rehandling bucket up to 5% greater productivity
- Fork attachments
- Rock handling Tunnelling
- Log handling
- Surface mining
- Custom built attachments

#### Here to support you

- Genuine Volvo Parts
- Operator training
- Volvo ACTIVE CARE
- Volvo CareTrack Telematics

### MAXIMIZE YOUR UPTIME

Offering strength in demanding applications, these Loaders are built to last. Maintain the life of your machines with simple serviceability and proactive dealer support, as well as flexible maintenance and repair plans.

#### Durable by design



Designed with durability in mind, the H-series wheel loaders are built with a strong frame structure, ideallymatched to Volvo power train. The hydraulically-driven cooling fan regulates component temperature and can be automatically reversed to permit self-cleaning of the cooling units. For long service life, the brakes are outboard mounted and the front and rear axles are cooled by the oil circulation.

#### **Proactive Monitoring**



Keep your machine moving with Volvo ACTIVE CARE. Volvo monitors machine health remotely, from our very own Uptime Center, helping to predict potential failures before they occur. This gives you more time to focus on your operation, helping to reduce unplanned downtime and minimize repair costs.

#### Here to support you



Maintain productivity and machine uptime with our range of readily available Genuine Volvo Parts, all backed by Volvo warranty. We're here to help you stay on track, offering flexible maintenance and repair plans.

#### Slidable cooler installation



The cooler installation slides out, for ease and speed of cleaning.

### VOLVO L90H, L120H IN DETAIL

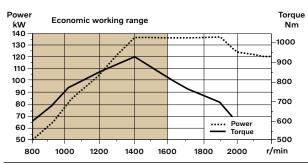
#### Engine

The engine is a straight six cylinder, four stroke, turbo charged diesel engine with direct injection and charge air cooler. The engine meets the new CEV-V emission requirements. The engine uses a common rail fuel system controlled by the engine control module (ECM). Engines with ACT (advanced combustion technology) feature split injection and turbocharger with mechanical wastegate. The exhaust after treatment system (EATS) is equipped with a diesel oxidation catalyst (DOC), a diesel particulate filter (DPF) and a SCR system to reduce emissions. Cooled exhaust gas recirculation (EGR) also reduces emissions.

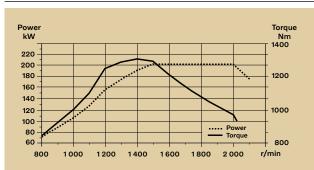
#### L90H

Engine	Volvo	D6J
Max. power at	r/min	1400-1900
ISO 14396 gross	kW	137
	hp	186
ISO 9249, SAE J1349 net	kW	137
	hp	186
Max. torque at	r/min	1400
SAE J1995 gross	Nm	934
ISO 9249, SAE J1349 net	Nm	934
Economic working range	r/min	800-1600
Displacement	1	5.7
L120H		
Engine	Volvo	D8J
Max. power at	r/min	1500
ISO 14396 gross	kW	203
	hp	276
ISO 9249, SAE J1349 net	kW	203
	hp	276
Max. torque at	r/min	1450
SAE J1995 gross	Nm	1 3 2 0
ISO 9249, SAE J1349 net	Nm	1 317
Economic working range	r/min	850 - 2 100
Displacement	I	7.8

#### L90H



#### L120H



#### Drivetrain

#### Torque converter: Single-stage.

**Transmission:** Volvo countershaft transmission with single lever control. Fast and smooth shifting of gears with Pulse Width Modulation (PWM) valve.

**Transmission:** Volvo Automatic Power Shift (APS) with fully automatic shifting 1-4 and mode selector with 4 different gear shifting programs, including AUTO. Also equipped with Rimpull control to avoid wheel spin and optimise bucket filling. OptiShift transmission is also available as an option.

Axles: Volvo fully floating axle shafts with planetary hub reductions and cast steel axle housing. Fixed front axle and oscillating rear axle. 100% differential lock on the front axle. Optional: Limslip rear.

		L90H	L120H
Transmission	Volvo	HTE 125	HTE 206C
Torque multiplication, stall ratio		2.50:1	2.47:1
Maximum speed, forward/reverse			
1st gear	km/h	6.5	7
2nd gear	km/h	14	13.5
3rd gear	km/h	26	28
4th gear	km/h	46	40
Note: 4th gear limited by ECU			
Measured with tyres		20.5 R 25	23.5 R 25
Front axle/rear axle		AWB 25/ AWB 20	AWB 31/ AWB 30
Rear axle oscillation	±°	13	13
Ground clearance	mm	470	460
at oscillation	٥	13	13

#### Electrical system

**Central warning system:** Contronic electrical system with central warning light and buzzer for following functions: - Serious engine fault - Low steering system pressure - Over speed warning engine - Interruption in communication (computer fault) Central warning light and buzzer with the gear engaged for the following functions. - Low engine oil pressure - High engine oil temperature - High charge air temperature - Low coolant level - High coolant temperature - High crank case pressure - Low transmission oil pressure - High transmission oil temperature - Low brake pressure - Engaged parking brake - Fault on brake charging - Low hydraulic oil level - High hydraulic oil temperature - Overspeeding in engaged gear - High brake cooling oil temperature front and rear axles.

		L90H	L120H
Voltage	V	24	24
Batteries	V	2 x 12	2 x 12
Battery capacity	Ah	2 x 110	2 x 170
Cold cranking capacity, approx	А	680	1000
Alternator rating	W/A	3135/80	2280/80
Starter motor output	kW	5.5	5.5

#### Brake system

Service brake: Volvo dual-circuit system with nitrogen charged acculmulators. Outboard mounted hydraulically operated, fully sealed oil circulation cooled wet disc brakes. The operator can select automatic declutch of the transmission when braking by selecting the setting in the contronics.

**Parking brake:** Dry disc brake. Applied by spring force, electro-hydraulic release with a switch on the instrument panel. **Secondary brake:** Dual brake circuits with rechargeable accumulators.

**Secondary brake:** Dual brake circuits with rechargeable accumulators. One circuit or the parking brake fulfills all safety requirements.

Standard: The brake system complies with the requirements of ISO 3450.			
	L90H	L120H	
Number of brake discs per wheel front	1	1	
Accumulators	2 x 0.5+ 1 x 1.0	3 x 1.0	

#### Cab

Instrumentation: All important information is centrally located in the operator's field of vision. Display for Contronic monitoring system. Heater and defroster: Heater coil with filtered fresh air and fan with auto and manual(11 speed) setting. Defroster vents for all window areas. **Operator's seat:** Operator's seat with adjustable suspension and retractable seatbelt. The seat is mounted on a bracket on the rear cab wall and floor. The forces from the retractable seatbelt are absorbed by the seat

Standard: The cab is tested and approved according to ROPS (ISO 3471, SAE J1040), FOPS (ISO 3449). The cab meets with requirements according to ISO 6055 (Operator overhead protection - Industrial trucks) and SAE J386 ("Operator Restraint System").

with air conditioning. Contains fluorinated greenhouse gas R134a, Global Warming Potential 1.430 t  $CO_2$ -eq.

		L90H	L120H
Emergency exit: Use emergence			
Ventilation	m³/min	9	9
Heating capacity	kW	16	16
Air conditioning (optional)	kW	7.5	7.5

#### Lift Arm System

Torque Parallel linkage (TP-linkage) with high breakout torque and parallel movement throughout the entire lifting range.

		L90H	L120H
Lift cylinders		2	2
Cylinder bore	mm	120	150
Piston rod diameter	mm	70	80
Stroke	mm	744	676
Tilt cylinder		1	1
Cylinder bore	mm	180	210
Piston rod diameter	mm	90	110
Stroke	mm	430	412

#### Steering System

Steering system: Load-sensing hydrostatic articulated steering. System supply: The steering system has priority feed from a load-sensing axial piston pump with variable displacement. Steering cylinders: Two double-acting cylinders.

		L90H	L120H
Steering cylinders		2	2
Cylinder bore	mm	80	80
Rod diameter	mm	50	50
Stroke	mm	345	486
Working pressure	MPa	21	21
Maximum flow	l/min	60	120
Maximum articulation	±°	40	40

Sound Level			
		L90H	L120H
Sound pressure level in cab acc	ording to ISO 6	396	
L <sub>pA</sub>	dB	68	68
External sound level according to 2000/14/EC	to ISO 6395 and	d EU Noise Dir	ective
L <sub>WA</sub>	dB	105	106

#### Hydraulic system

System supply: Two load-sensing axial piston pumps with variable displacement. The steering system always has priority. Valves: Double-acting 2-spool valve. The main valve is controlled by a

spool pilot valve.

Lift function: The valve has four positions; raise, hold, lower and floating position. Inductive/magnetic automatic boom kickout can be switched on and off and is adjustable to any position between maximum reach and full lifting height.

Tilt function: The valve has three functions including rollback, hold and dump. Inductive/magnetic automatic tilt can be adjusted to the desired **Cylinders:** Double-acting cylinders for all functions

Filter: Full flow filtration through 1	0 micron	(absolute) filter	cartridge.
		L90H	L120H
Working pressure maximum, pump 1 for working hydraulic system	MPa		29.0 ± 0.5
Flow	l/min		128
at	MPa		10
engine speed	r/min		1900
Working pressure maximum, pump 2 for steering-, brake-, pilot- and working hydraulic system	MPa	31.0 ± 0.5	31.0 ± 0.5
Flow	l/min	162	135
at	MPa	10	10
engine speed	r/min	1900	1900
Working pressure maximum, pump 3 for brake- and cooling fan system	MPa	21.0 ± 0.5	21.0 ± 0.5
Flow	l/min	33	33
at	MPa	10	10
engine speed	r/min	1900	1900
Pilot system, working pressure	MPa	3.5	3.5
Cycle times			
Lift	s	5.7	5.4
Tilt	S	2.3	2.1
Lower, empty	s	4.0	2.5
Total cycle time	S	12.0	10

#### Service Refill

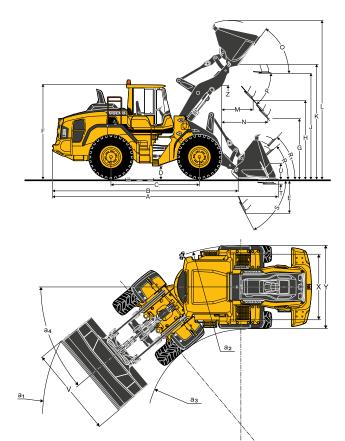
Service accessibility: Electrically openable engine hood with large opening angle giving excellent access to the engine compartment. Fluid filters and component breather air filters promote long service intervals. A quick-fit adapter on the hydraulic tank provides faster hydraulic oil fill. ad analydata ta faailit

Possibility to monitor, log and analyze data to lacilitate troubleshooting.				
		L90H	L120H	
Fuel tank	I	222	270	
DEF/AdBlue <sup>®</sup> tank	Ι	20	25	
Engine coolant	1	30	43	
Hydraulic oil tank	Ι	90	133	
Transmission oil	1	21	38	
Engine oil	I	20	22	
Axle oil front	1	35	36	
Axle oil rear	Ι	27	41	

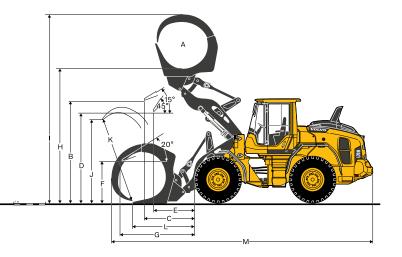
### **Specifications**

		L90H		L120H	
		Tyres 20.	5 R 25L3	Tyres 23.	5 R 25L3
		Standard boom	Long boom	Standard boom	Long boom
В	mm	6,170	6,600	6,580	7,070
С	mm	3,050	3,050	3,200	3,200
D	mm	450	440	440	440
F	mm	3,280	3,280	3,380	3,380
G	mm	2,132	2,132	2,132	2.133
J	mm	3,730	4,140	3,760	4,370
к	mm	4,040	4,460	4,100	4,630
0	0	57	58	54	55
P <sub>max</sub>	0	45	44	50	49
R	0	44	47	42	42
R <sub>1</sub> *	0	49	53	45	50
S	0	67	65	68	64
т	mm	112	123	119	127
U	mm	480	570	450	640
х	mm	1,960	1,960	2,070	2,070
Y	mm	2,490	2,490	2,670	2,670
Z	mm	3,460	3,910	3,340	3,720
a <sub>2</sub>	mm	5,430	5,430	5,730	5,730
a <sub>3</sub>	mm	2,940	2,940	3,060	3,060
a <sub>4</sub>	±0	40	40	40	40

\* Carry position SAE Where applicable, specificatios and dimensions are according to ISO 7131, SAE J732, ISO 7546, SAE J742, ISO 14397, SAE J818.



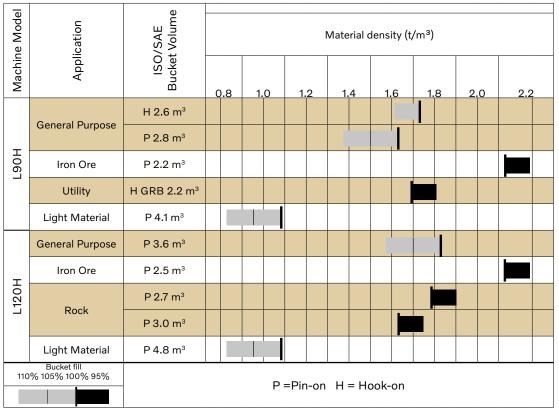
		L90H	L120H
		Tyres 20.5 R 25	Tyres 750/65 R 25
А	m²	2.4	2.4
В	mm	3,490	3,470
С	mm	1,705	1,850
D	mm	2,865	2,850
Е	mm	1,320	1,460
F	mm	1,440	1,520
G	mm	2,740	2,720
Н	mm	4,615	4,580
1	mm	6,665	6,620
J	mm	2,785	2,790
К	mm	2,990	2,990
L	mm	2,130	2,060
М	mm	8,470	8,770



### L90H - L120H Buckets

		L90H - Tyres 20.5 R 25 L3				L120H - Tyres 23.5 R25 L3					
			Ø.								
		2.8 m <sup>3</sup> STE P T & S	2.6 m <sup>3</sup> STE H T & S	2.2 m <sup>3</sup> RO SPN P T	4.1 m <sup>3</sup> LM P BOE	2.2 m <sup>3</sup> GRB H BOE	2.5 m <sup>3</sup> STE P T&S*	3.6 m <sup>3</sup> STE P T&S*	2.7 m <sup>3</sup> RO SPN P T&S*	3.0 m <sup>3</sup> RO SPN P T&S*	4.8 m <sup>3</sup> LM P BOE
Volume, heaped ISO/SAE	m <sup>3</sup>	2.8	2.6	2.2	4.1	2.2	2.5	3.6	2.7	3.0	4.8
Volume at 110% fill factor	m³	3.1	2.9	2.4	4.5	2.4	2.8	4.0	3.0	3.3	5.3
Static tipping load, straight	kg	11,742	11,257	11,936	11,266	9,586	15,272	14,678	15,003	15,030	13,500
at 35° turn	kg	10,423	9,978	10,608	9,978	8,490	13,576	13,010	13,286	13,321	11,500
at full turn	kg	10,034	9,600	10,217	9,598	8,167	13,075	12,518	12,781	12,817	11,200
Breakout force	kN	137.8	131.1	135.6	107.7	96.1	193.5	169.5	150.7	150.4	123
А	mm	7,750	7,810	7,810	7,930	8,010	8,070	8,270	8,240	8,180	8,570
E	mm	1,330	1,390	1,390	1,490	1,650	1,250	1,410	1,400	1,370	1,730
Н	mm	2,720	2,670	2,690	2,600	2,450	2,880	2,750	2,790	2,800	2,550
L	mm	5,310	5,320	5,370	5,500	4,820	5,360	5,570	5,620	5,700	5,800
Μ	mm	1,240	1,260	1,320	1,380	1,300	1,210	1,330	1,360	1,320	1,440
Ν	mm	1,740	1,760	1,800	1,740	1,630	1,800	1,850	1,910	1,870	1,830
V	mm	2,750	2,750	2,650	2,750	2,650	2,880	3,000	2,880	2,880	2,880
a1 clearance circle	mm	12,136	12,168	12,092	12,240	12,476	12,704	12,910	12,891	12,890	12,800
Operating weight	kg	15,107	15,301	15,135	15,371	15,276	19,227	19,490	20,555	20,462	19,700

\* With Bridgestone 23.5 R 25 L5 Tyre



How to read bucket fill factor

#### **Bucket Selection Chart**

The chosen bucket is determined by the density of the material and the expected bucket fill factor. The actual bucket volume is often larger than the rated capacity, due to the features of the TP linkage, including an open bucket design, good rollback angles in all positions and good bucket filling performance. The example represents a standard boom configuration. Example: Sand and gravel. Fill factor ~ 105%. Density 1.6 t/m<sup>3</sup>. Result: The 3.4 m<sup>3</sup> bucket carries 3.6 m<sup>3</sup>. For optimum stability always consult the bucket selection chart.

Supplemental Operating Data						
Tyres 20.5 R25 L3		L90H	L120H			
Tyres 23.5 R25 L3		20.5 R25 L2	23.5 R25 L5			
Width over tyres	mm	+4	30			
Ground clearance	mm	-8	50			
Tipping load, full turn	kg	-70	450			
Operating weight	kg	-111	670			

### Equipment

#### STANDARD EQUIPMENT

STANDARD EQUIPMENT	L90H	L120H
Engine		
Exhaust after-treatment system	•	•
Three -stage air cleaner, pre-cleaner, primary and secondary filter	•	•
Indicator glass for coolant level	•	•
Preheating of induction air	•	•
Fuel pre-filter with water trap	•	•
Fuel filter	•	•
Crank case breather oil trap Exterior radiator air intake protection	•	•
Drivetrain		
Automatic Power Shift	•	•
Fully automatic gear shifting, 1-4	•	•
PWM - controlled gear shifting	•	•
Forward and reverse switch by hydraulic lever console	•	•
Rimpull control	•	•
Indicator glass for transmission oil level	•	•
Differentials: Front, 100% hydraulic diff lock. Rear, conventional	•	•
Lock-up first gear		
Electrical system		•
24 V, pre - wired for optional accessories Alternator 24V/80A/2280W	•	•
Battery disconnect switch	•	•
Fuel gauge	•	•
Hour meter	•	•
Electric horn	•	•
Instrument cluster:		
Fuel level		
Diesel Exhaust Fluid/AdBlue level Transmission temperature	•	•
Coolant temperature		
Instrument lighting		
Lighting:		
Twin halogen front headlights with high and low beams		
Parking lights Double brake and tail lights	•	•
Turn signals with flashing hazard light function		
Halogen work lights (2 front and 2 rear)		
Contronic monitoring system	-	
Monitoring and logging of machine data		
Contronic display Fuel consumption	•	•
Diesel Exhaust Fluid/AdBlue consumption	•	•
Ambient temperature	•	•
Clock	•	•
Test function for warning and indicator lights	•	•
Brake test	•	•
Warning and indicator lights:		
Battery charging	•	•
Parking brake	•	•
Warning and display message: Regeneration		
Engine coolant temperature		
Charge air temperature		
Engine oil temperature Engine oil pressure		
Transmission oil pressure		
Hydraulic oil temperature		
Brake pressure	•	•
Parking brake applied Brake charging		
Over speed at direction change		
Axle oil temperature		
Steering pressure		
Crank case pressure Attachment lock open		
Safety Belt Warnings		
Level warnings		
Fuel level	•	•
Diesel Exhaust Fluid/AdBlue level		
Engine oil level		

L90HL120HEngine coolant level.Hydraulic oil level.Washer fluid level.Engine torque reduction in case of malfunction.High engine coolant temperature.High engine colant temperature.High charge air temperature.Engine torque reduction in case of malfunction indicationHigh charge air temperature.Engine shutdown to idle in case of malfunction indicationHigh charge air temperature.Slip in transmission oil temperature:.Slip in transmission clutches.Key pad, background it.Main vake, double acting 2-spool with hydraulics, plot hydraulics, sterm.2 Vorking hydraulics, plot hydraulics, and brake system.3 Cooling fan, brake system.2 Electro - hydraulic servo controls.Electro - hydraulic servo controls.Electro - hydraulic servo controls.Electro hydraulic level lock.Automatic boenk tick-out.Dual brake system.Dual brake system.Dual brake gedals.Secondary brake system.Parking brake, electrico-hydraulic.Brake wear indicators.Cab.ROPS (ISO 3471), FOPS (ISO 3449).Single key kit door/start.Automatic heat control.Floor mat.Dual brake set bett (SAE J386).Dual atterior rear view mirrors.<	STANDARD EQUIPMENT		
Transmission oil level       Hydraulic oil level         Hydraulic oil level       Hydraulic oil level         Engine torque reduction in case of malfunction indication:       High engine oil temperature         High engine colant temperature       Image: Colant temperature         High engine oil temperature       Image: Colant temperature         Engine shutdown to idle in case of malfunction indication       High charge air temperature:         Silp in transmission oil temperature:       Silp in transmission oil temperature:         Main valve, double acting 2-spool with hydraulic pilots       Image: Colant temperature         Main valve, double acting 2-spool with hydraulics, and brake system       Image: Colant temperature         2 Working hydraulics, pilot hydraulics, and brake system       Image: Colant temperature         2 Working hydraulics, pilot hydraulics, and brake system       Image: Colant temperature         2 Working hydraulic spilot pydraulic system       Image: Colant temperature         2 Hydraulic lever lock       Image: Colant temperature         Automatic boom kick-out       Image: Colant temperature         Dual brake ericuits       Image: Colant temperature         Dual brake greating       Image: Colant temperature         Brake waar indicators       Image: Colant temperature         Cabacting with fresh air inlet and defroster       Image: Colant temperate <th></th> <th>L90H</th> <th>L120H</th>		L90H	L120H
Hydraulic oil level       .         Washer fluid level       .         Engine torgue reduction in case of malfunction indication:       .         High engine coll temperature       .         Low engine oil temperature       .         Engine struct down to idle in case of malfunction indication       .         High charge air temperature       .         Slip in transmission oil temperature:       .         Slip in transmission clutches       .         Key pad, background lit       .         Start interlock when gear is engaged       .         Hydraulics, polot hydraulics, and brake system       .         2 Working hydraulics, pilot hydraulics, and brake system       .         2 Cooling fan, brake system       .         Electro - hydraulic serve controls       .       .         Electro hydraulic serve controls       .       .         Duble acting hydraulic oil level       .       .         Hydraulic oil cooler       .       .         Brake system       .       .       .         Dual brake pedals       .       .       .         Secondary brake system       .       .       .         Dual brake pedals       .       .       .	Engine coolant level		
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Lockable door•Cab heating with fresh air inlet and defroster•Fresh air inlet with two filters•Automatic heat control•Floor mat•Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Windshield wipers front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Quick-fit hydraulic oil fill•		•	•
Cab heating with fresh air inlet and defroster•Fresh air inlet with two filters•Automatic heat control•Floor mat•Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Quick-fit hydraulic oil fill•Quick-fit hydraulic oil fill•	Cigarette lighter, 24 V power outlet	•	•
Fresh air inlet with two filters•Automatic heat control•Floor mat•Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Quick-fit hydraulic oil fill•Quick-fit hydraulic oil fill•	Lockable door	•	•
Automatic heat control•Floor mat•Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Windshield wipers front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Lubrication mainfolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•	-	•	•
Floor mat•Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Unterval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Lubrication mainfolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•		•	•
Dual interior lights•Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Unterval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Lubrication mainfolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•		•	•
Interior rear view mirrors•Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Lubrication mainfolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•		•	•
Dual exterior rear view mirrors•Sliding window, right side•Tinted safety glass•Retractable seat belt (SAE J386)•Adjustable steering wheel•Storage compartment•Document pocket•Sun visor•Beverage holder•Windshield washer front and rear•Windshield wipers front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Lubrication mainfolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•	_	•	•
Tinted safety glass       •         Retractable seat belt (SAE J386)       •         Adjustable steering wheel       •         Storage compartment       •         Document pocket       •         Sun visor       •         Beverage holder       •         Windshield washer front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •		•	•
Retractable seat belt (SAE J386)       •       •         Adjustable steering wheel       •       •         Storage compartment       •       •         Document pocket       •       •         Sun visor       •       •         Beverage holder       •       •         Windshield washer front and rear       •       •         Windshield wipers front and rear       •       •         Interval function for front and rear wipers       •       •         Service and maintenance       •       •         Engine oil remote drain and fill       •       •         Lubrication manifolds, ground accessible       •       •         Pressure check connections; transmission and hydraulic, quick connects       •       •         Quick-fit hydraulic oil fill       •       •       •	Sliding window, right side	•	•
Adjustable steering wheel       •         Storage compartment       •         Document pocket       •         Sun visor       •         Beverage holder       •         Windshield washer front and rear       •         Windshield wipers front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •	Tinted safety glass	•	•
Storage compartment       •         Document pocket       •         Sun visor       •         Beverage holder       •         Windshield washer front and rear       •         Windshield wipers front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •	Retractable seat belt (SAE J386)	•	•
Document pocket       •         Sun visor       •         Beverage holder       •         Windshield washer front and rear       •         Windshield wipers front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •	, ,	•	•
Sun visor•Beverage holder•Windshield washer front and rear•Windshield wipers front and rear•Interval function for front and rear wipers•Service and maintenance•Engine oil remote drain and fill•Transmission oil remote drain and fill•Lubrication manifolds, ground accessible•Pressure check connections; transmission and hydraulic, quick connects•Quick-fit hydraulic oil fill•		•	•
Beverage holder       •         Windshield washer front and rear       •         Windshield wipers front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Lubrication manifolds, ground accessible       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •		•	•
Windshield washer front and rear       •         Windshield wipers front and rear       •         Interval function for front and rear wipers       •         Service and maintenance       •         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Lubrication manifolds, ground accessible       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •			
Windshield wipers front and rear       •       •         Interval function for front and rear wipers       •       •         Service and maintenance       •       •         Engine oil remote drain and fill       •       •         Transmission oil remote drain and fill       •       •         Lubrication manifolds, ground accessible       •       •         Pressure check connections; transmission and hydraulic, quick connects       •       •         Quick-fit hydraulic oil fill       •       •       •		•	•
Interval function for front and rear wipers       •         Service and maintenance         Engine oil remote drain and fill       •         Transmission oil remote drain and fill       •         Lubrication manifolds, ground accessible       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •		•	•
Engine oil remote drain and fill       •       •         Transmission oil remote drain and fill       •       •         Lubrication manifolds, ground accessible       •       •         Pressure check connections; transmission and hydraulic, quick connects       •       •         Quick-fit hydraulic oil fill       •       •		•	•
Transmission oil remote drain and fill       •         Lubrication manifolds, ground accessible       •         Pressure check connections; transmission and hydraulic, quick connects       •         Quick-fit hydraulic oil fill       •			
Lubrication manifolds, ground accessible       •       •         Pressure check connections; transmission and hydraulic, quick connects       •       •         Quick-fit hydraulic oil fill       •       •	Engine oil remote drain and fill	•	•
Pressure check connections; transmission and hydraulic, quick connects Quick-fit hydraulic oil fill • •		•	•
quick connects       Quick-fit hydraulic oil fill		•	•
Quick-fit hydraulic oil fill • •		•	•
		•	•
	Tool box, lockable	•	•

STANDARD EQUIPMENT		
	L90H	L120H
External equipment		·
Orange hand rails	•	•
Fenders, front and rear	•	•
Viscous cab mounts		
Rubber engine and transmission mounts	•	•
Frame, joint lock	•	•
Vandalism lock prepared for Engine compartment Radiator Grille	•	•
Lifting eyes	•	•
Tie down eyes	•	•
Fabricated counterweight	•	•
Counterweight, pre-drilled for optional guards	•	•

#### OPTIONAL EQUIPMENT

OPTIONAL EQUIPMENT	1	
	L90H	L120H
Engine		
Air pre-cleaner, cyclone type	•	•
Air pre-cleaner, oil-bath type	•	•
Air pre-cleaner, turbo type	•	•
Engine auto shut down	•	•
Engine delayed shut down	•	•
Engine block heater	•	•
Fuel fill strainer	•	•
Hand throttle control	•	•
Max. fan speed, hot climate	•	•
Radiator, corrosion-protected	•	•
Reversible cooling fan	•	•
Reversible cooling fan and axle oil cooler	•	•
Tyres		
23.5R25	•	•
750/65 R25	•	•
Electrical system	•	•
Anti-theft device	•	•
Alarm kit, Anti-theft function in WECU	·	•
Battery disconnect switch, additional in cab	•	•
Emergency stop	•	•
Locking device, Tag out, Lock out	•	•
Headlights, assym left	•	•
License plate-holder, lighting	•	•
Rear view camera, monitor	•	•
Rear view mirrors, adjustable, el. heated long arm right	•	•
Reduced function working lights, reverse gear activated	•	•
Reverse alarm, audible	•	•
Reverse alarm, white noise	•	•
Reverse warning light, strobe lightning	•	•
Seat belt indicator, external	•	•
Shortened headlight support brackets	•	•
Side marker lamps	•	•
Warning beacon LED	•	•
Warning beacon LED automatic	•	•
LED Head Light	•	•
LED tail light	•	•
LED working lights, attachments	•	•
LED working lights on cab, front and rear	•	•
LED working lights on cab, front, 2 alt. 4 LED lamps	•	•
LED working lights on cab, rear, 2 alt. 4 LED lamps	•	•
LED working lights, rear in grille, 2 LED lamps	•	•
LED working lights, front above head lamps, 2 LED		
lamps		-
LED work lights, side on cab, 4 LED lamps	•	•
LED light packages	•	•
Working lights halogen, attachments	•	•
Working lights on cab halogen, front and rear	•	•
Working lights on cab halogen, rear	•	•
Electrical distribution 24V	•	•
Alternator 120 amp, heavy-duty	•	•
Load Assist	•	•

OPTIONAL EQUIPMENT	L90H	L120H
Radar Detect System	LOOH	L120H
Forward camera, colour	•	•
Park braking alarm, audible for air susp seats	•	•
Jump start connector, NATO-Type	•	•
Max Boom height	•	•
Can Bus Interface	•	•
Delayed Engine Shutdown Co-pilot available	•	•
Rear view camera in co-pilot		•
On board Weighing	•	•
Tyre Pressure monitoring	•	•
MAP	•	•
Hydraulic System		
Boom Suspension System	•	•
Separate attachment locking, Arctic kit, attachment locking hoses		•
Boom cylinder hose and tube guards	•	•
Hydraulic fluid, biodegradable, Volvo	•	•
Hydraulic fluid, fire resistent	•	•
Hydraulic fluid, for hot climate	•	•
Hydraulic, 3 <sup>rd</sup> function	•	•
Hydraulic, 3 <sup>rd</sup> - 4 <sup>th</sup> function	•	•
Hydraulic constant flow control with detent for 3 <sup>rd</sup> function	•	•
Single lever control, hydraulics 2 functions	•	•
Single lever control, hydraulics 3 functions	•	•
Single lever control, hydraulics 4 functions	•	•
Brake system		
Oil cooler and filter front & rear axle Opti-Shift transmission with Lock-up RBB	•	•
Diff. lock front 100%, Limited Slip-rear		•
Agri power-shift / lock-up 1 ->4	•	•
Speed Limiter	•	•
Stainless steel, brake lines	•	•
Cab		
Anchorage for Operator's manual Automatic Climate Control, ACC	•	•
ACC Control panel, with Fahrenheit sacle		•
Asbestos dust protection filter	•	•
Ashtray	•	•
Cab air pre-cleaner, cyclone type	•	•
Carbon filter	•	•
Cover plate, under cab	•	•
Lunch box holder Volvo Armrest, operator's seat, left	•	•
Operator's seat, Volvo air-suspended, heavy-duty, high		
back, heated	•	•
Operator's seat (air seat std.) 2-point seat belt	•	•
Operator's seat (air seat std.) 3-point seat belt		
Operator's seat, Premium Comfort ISRI Operator's seat, Premium Comfort ISRI 3-point seat belt	•	•
Radio installation kit including 12 volt outlet, left-side	•	•
Radio installation kit including 12 volt outlet, right-side	•	•
Radio with AUX, Bluetooth and USB connection	•	•
DAB Radiot	•	•
Subwoofer	•	•
Steering wheel knob	•	•
Sun blinds, rear windows Sun blinds, side windows	•	•
Timer cab heating	•	•
Window, sliding, door	•	•
Universal door/ignition key	•	•
Remote door opener	•	•
Forward view mirror	•	•
Cab heater power outlet 240V	•	•
Cab, Hot applications. Roof, steel Rear view mirrors, el.adjusted and heated	•	•
Fire extinguisher cab	•	•
Outside steel protection cab	•	•
Rear view mirrors, long arm, cab	•	•
Reinforced windshield, flat		

Reinforced windshield, flat

OPTIONAL EQUIPMENT		
	L90H	L120H
Service and maintenance		
Automatic lubrication system	•	•
Automatic lubrication system for long boom	•	•
Oil sampling valve	•	•
Refill pump for automatic lubrication system	•	•
Tool kit	•	•
Wheel nut wrench kit	•	•
CareTrack, GSM, GSM/Satellite	•	•
Telematics, Subscription	•	•
Protective equipment		
Belly guard front	•	•
Belly guard rear	•	•
Cover plate front frame, heavy-duty	•	•
Cover plates rear frame	•	•
Cover plate front/rear axle	•	•
Cab roof, heavy duty	•	•
Guards for front headlights	•	•
Guards for radiator grill	•	•
Guards for tail lights	•	•
Windows, side and rear guards	•	•
Windshield guard	•	•
Wheel/axle seal guards	•	•
Corrosion protection, painting of machine	•	•
Corrosion protection, painting of attachment bracket	•	•
Bucket teeth protection	•	•
External equipment	•	•
Cab ladder, rubber suspended	•	•
Deleted front mudguards & wideners rear	•	•
Handles on counter weight	•	•
Fire suppression system	•	•

OPTIONAL EQUIPMENT		
	L90H	L120H
Mudguards, full cover, rear for 80 - series tyre	•	•
Mudguards, full cover, rear for 65 - series tyres	•	•
Long boom	•	•
Tow hitch	•	•
Other equipment		
CE-marking	•	•
Comfort Drive Control (CDC)	•	•
Counterweight, logging	•	•
Counterweight, signal painted, chevrons	•	•
Secondary steering with automatic test function	•	•
Sound Decal, EU	•	•
Sound Decal USA	•	•
Reflecting sticker (Stripes), machine contour cab	•	•
Option for machines without dinitro	•	•
Noise reduction kit, exterior	•	•
Sign, slow moving vehicle	•	•
Sign, 50 km/h	•	•
Attachments		
Buckets:		
Rocket straight or spade nose		
General purpose	•	•
Re-handling Light material		
5		
Wear parts Bolt-on and weld-on bucket teeth		
Segments	•	•
Cutting-edge in three sections, bolt-on		
Fork equipment	•	•
Material handling arn	•	•
Long grapples	•	•

#### **VOLVO OFFERINGS**

CEV-IV Complied Engines (L90H, L120H)



#### ROPS / FOPS Cab



Rearview Camera



CARETRACK - Telematics



Premium Seat



Axle Oil Cooler (L90H, L120H)



Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.